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Proposed Maximum Residue Limit

PMRL2015-49

Spinosad

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Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) has concluded that the addition of new uses on the Caneberry (Crop Subgroup 13-07A), Bushberry (Crop Subgroup 13-07B) and Low growing berry (Crop Subgroup 13-07G) subgroups to the product labels of Success Insecticide and Entrust Insecticide, containing technical grade spinosad, is acceptable. The specific uses approved in Canada are detailed on the labels of Success Insecticide and Entrust Insecticide, *Pest Control Products Act* Registration Numbers 26835 and 30382, respectively.

The evaluation of these spinosad applications indicated that the end-use products have value, and the human health and environmental risks associated with the new uses are acceptable.

Before registering a pesticide for food use in Canada, the PMRA must determine the quantity of residues that are likely to remain in or on the food when the pesticide is used according to label directions and that such residues will not be a concern to human health. This quantity is then legally specified as a maximum residue limit (MRL). An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except where separate MRLs are specified for the raw agricultural commodity and a processed product made from it.

Consultation on the proposed MRLs for spinosad is being conducted via this document (see Next Steps, the last section of this document). A summary of the field trial data used to support the proposed MRLs can be found in Appendix I.

To comply with Canada's international trade obligations, consultation on the proposed MRLs is also being conducted internationally by notifying the World Trade Organization, as coordinated by Canada's Notification Authority and Enquiry Point.

The proposed MRLs, to replace or be added to the MRLs already established for spinosad, are as follows.

Table 1 Proposed Maximum Residue Limits for Spinosad

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
Spinosad	Spinosyn A: (2<i>R</i>,3<i>aS</i>,5<i>aR</i>,5<i>bS</i>,9<i>S</i>,13<i>S</i>,14<i>R</i>,16<i>aS</i>,16<i>bR</i>)-2-[(6-deoxy-2,3,4-tri-<i>O</i>-methyl-α-L-mannopyranosyl)oxy]-13-[[2<i>R</i>,5<i>S</i>,6<i>R</i>)-5-(dimethylamino)-tetrahydro-6-methyl-2<i>H</i>-pyran-2-yl]oxy]-9-ethyl-2,3,3<i>a</i>,5<i>a</i>,5<i>b</i>,6,9,10,11,12,13,14,16<i>a</i>,16<i>b</i>-tetradecahydro-14-methyl-1<i>H</i>-as-indaceno[3,2-d]oxacyclododecin-7,15-dione and Spinosyn D: (2<i>S</i>,3<i>aR</i>,5<i>aS</i>,5<i>bS</i>,9<i>S</i>,13<i>S</i>,14<i>R</i>,16<i>aS</i>,16<i>bR</i>)-2-[(6-deoxy-2,3,4-tri-<i>O</i>-methyl-α-L-mannopyranosyl)oxy]-13-[[2<i>R</i>,5<i>S</i>,6<i>R</i>)-5-(dimethylamino)-tetrahydro-6-methyl-2<i>H</i>-pyran-2-yl]oxy]-9-ethyl-2,3,3<i>a</i>,5<i>a</i>,5<i>b</i>,6,9,10,11,12,13,14,16<i>a</i>,16<i>b</i>-tetradecahydro-4,14-dimethyl-1<i>H</i>-as-indaceno[3,2-d]oxacyclododecin-7,15-dione	0.5	Aronia berries, buffalo currants, Chilean guavas, European barberries, highbush blueberries ² , honeysuckle, jostaberries, lowbush blueberries ² , native currants, Saskatoon berries (juneberries), salal berries, sea buckthorn, wild raspberries
		0.7	Bearberries, bilberries, cloudberries, lingonberries, muntries, partridgeberries

¹ ppm = parts per million

² The MRLs are proposed to replace the currently established 0.5 ppm MRL for blueberries to reflect current terminology.

MRLs established in Canada may be found using the Maximum Residue Limit Database on the Maximum Residue Limits for Pesticides webpage. The database allows users to search for established MRLs, regulated under the *Pest Control Products Act*, both for pesticides or for food commodities.

International Situation and Trade Implications

MRLs may vary from one country to another for a number of reasons, including differences in pesticide use patterns and the locations of the field crop trials used to generate residue chemistry data.

Table 2 compares the MRLs proposed for spinosad in Canada with corresponding American tolerances and Codex MRLs.¹ American tolerances are listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. A listing of established Codex MRLs is available on the Codex Alimentarius Pesticide Residues in Food website, by pesticide or commodity.

Table 2 Comparison of Canadian MRLs, American Tolerances and Codex MRLs (where different)

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Caneberry (Crop Subgroup 13-07A)	0.5	0.7 (Caneberry Subgroup 13A)	1 Blackberries; raspberries, red, black; dewberry (including boysenberry, and loganberry)
Bushberry (Crop Subgroup 13-07B, except highbush cranberries and lingonberries)	0.5	0.25 (Bushberry Subgroup 13B; juneberry, salal)	0.4 Blueberries
Low growing berry (Crop Subgroup 13-07G, except lowbush blueberries and lowbush cranberries)	0.7	0.25 Lingonberry	Not established
		1.0 Strawberry	

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for spinosad up to 75 days from the date of publication of this document. Please forward your comments to Publications (see the contact information on the cover page of this document). The PMRA will consider all comments received before making a final decision on the proposed MRLs. Comments received will be addressed in a separate document linked to this PMRL. The established MRLs will be legally in effect as of the date that they are entered into the Maximum Residue Limit Database.

¹ The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Appendix I

Summary of Field Trial Data Used to Support the Proposed Maximum Residue Limits

Previously reviewed residue data from field trials conducted in/on blueberries, raspberries and strawberries were reassessed in the framework of this petition.

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for spinosad was based upon the field trial data on file for raspberries, blueberries and strawberries. Table A1 summarizes the residue data used to calculate the proposed MRLs for crops within the Caneberry (Crop Subgroup 13-07A), Bushberry (Crop Subgroup 13-07B, except highbush cranberries and lingonberries) and Low growing berry (Crop Subgroup 13-07G, except lowbush blueberries and lowbush cranberries) subgroups.

Table A1 Summary of Field Trial Data Used to Support MRLs

Commodity	Application Method/ Total Application Rate (g a.i./ha) ¹	Preharvest Interval (days)	Minimum Residues (ppm)	Maximum Residues (ppm)
Highbush blueberries	Foliar application/ 589-602	1	0.032	0.19
Raspberries	Foliar application/ 530-650	1	0.134	0.509
Strawberries	Foliar application/ 397-507	1	0.03	0.63

¹ g a.i./ha = grams of active ingredient per hectare

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of spinosad. Residues of spinosad in these crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.